

Remote Control Box
WV-CB550



Before attempting to connect or operate this product,
please read these instructions completely.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For U.S.A.

Warning:

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

For CANADA

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

The serial number of this product may be found on the bottom of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

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PREFACE

The WV-CB550 Remote Control Box is used to remotely control for WV-E550 Color Video Camera. The communication between the camera and this control box is available by using the three coaxial cables.

Features and functions include white balance setting , iris control, total pedestal control, color bar/camera selection switch, horizontal and sub carrier phase adjustment for gen-lock.

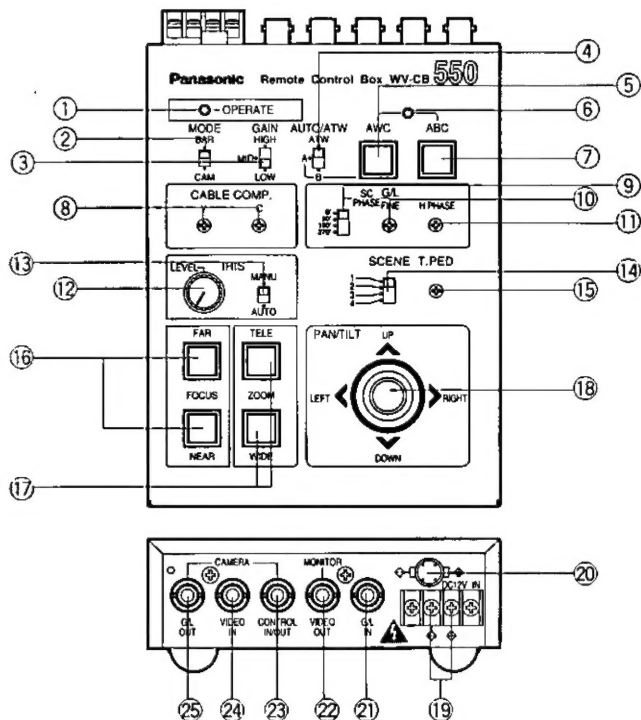
FEATURES

1. The camera operation can be controlled remotely with a single coaxial cable.
2. By using BELDEN 8281 or equivalent coaxial cable, the extension length is up to 300 m.

PRECAUTIONS

- Do not attempt to disassemble the unit. There are no user serviceable parts inside. Do refer any servicing to qualified personnel.
- Do not abuse the unit. Avoid striking, shaking etc.
- Do not use strong or abrasive detergents when cleaning the unit. Do use dry cloth to clean the unit when dirty. In case the dirt is hard to remove, use mild detergent and wipe gently.
- Do not expose the unit to rain or moisture. Do take immediate action if ever the unit and also create the danger of electric shock.
- Use the unit under the conditions where temperature is within -10°C - $+50^{\circ}\text{C}$ (14°F - 113°F) and humidity is less than 90%.
- Be sure to use either 4-pin Connector or Terminal for the Power Supply.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



1. Operating Indicator (OPERATE)

Indicates the operating condition of this unit.
This indicator will light in red when the communication between the WV-E550 and this unit starts.

2. Mode Selection Switch (MODE BAR / CAM)

This switch is used for signal selection between the camera mode and color bar mode.

BAR: Supplies a color bar signal from the Monitor Video Output Connector (22) of this unit.

CAM: Displays the actual camera picture, as picked up through the lens.

3. High Gain Selection Switch (GAIN HIGH / MID / LOW)

Normally, set this switch to the LOW position.
Positions HIGH and MID increase the video output amplitude for dark scenes and are equivalent to operating lens iris 1.5 or 3 F steps, respectively.

4. White Balance Selection Switch (AUTO / ATW ATW / A / B)

This switch is used to select the auto white balance modes as follows.

ATW: The white balance is continuously adjusted automatically.

A: The white balance can be set automatically by pressing the Auto White Set Switch (5).

B: Similar to A, but the setting is stored in memory B.

Note: Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

When this switch is set to A or B position, the white balance can be adjusted automatically by using the Auto White Set Switch (5).

5. Auto White Set Switch (AWC)

When the White Balance Selection Switch is set to the A or B position, pressing this switch adjusts the white balance automatically.

Note: When the Mode Selection Switch (2) has been set to the BAR position, Auto White Balance may be not performed correctly.

Refer to the Operating Instructions of the WV-E550 Color Video Camera for the detail.

6. AWC / ABC Indicator

This indicator blinks during the auto white / auto black balance setting.

It goes out once the white and black balances have been correctly set.

This indicator lights when the white or black is set improperly.

7. Auto Black Set Switch (ABC)

Pressing this switch adjusts the black balance automatically.

Be sure to set the Lens Iris Selection Switch (13) to the AUTO position for setting this switch.

8. Cable Compensation Control (CABLE COMP. Y/C)

Adjusts the luminance (Y) and chroma (C) signal levels according to the cable length between this unit and camera.

For this adjustment connect the waveform monitor, vector scope, measurement to the Monitor Video Output Connector (22) and set the Mode Selection Switch (2) to the BAR position.

Note: Adjust the luminance (Y) level by using the Y Control and then adjust the chroma (C) level by using the C Control repeatedly.

The Y Control adjusts the video signal level as well as the Y signal level.

9. Sub-carrier Phase Coarse Control for Gen-lock (G/L SC PHASE COARSE 0° / 90° / 180° / 270°)

This control allows for adjustment of the camera signal subcarrier phase from 0° to 360° in 90° steps, to match the phase with that of the burst signal at the Gen-lock Input Connector in a system configuration.

10. Subcarrier Phase Fine Control for Gen-lock (G/L SC PHASE FINE)

This control allows for fine adjustment of the camera signal subcarrier phase with that of the burst signal at the Gen-lock Input Connector in a system configuration.

Use this control with the Sub-Carrier Phase Coarse Control for Gen-lock (9).

11. Horizontal Phase Control for Gen-lock (G/L H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector.

12. Iris Level Control (IRIS LEVEL)

This control is used to adjust the lens iris level when setting the Lens Iris Selection Switch (13) to the MANU position. The iris level which had been automatically set, can be controlled fine by using this control when the Lens Iris Selection Switch (13) is set to the AUTO position and AUTO IRIS in page No.2 of initial set menu of the WV-E550 is set to the ADJ ON position.

13. Lens Iris Selection Switch (IRIS, MANU / AUTO)

AUTO: The iris level of the lens is controlled automatically.

Note: Be sure to set the Iris Control Selection Switch on the zoom lens to AUTO position if it is provided to the lens.

MANU: The iris level of the lens is controlled manually by turning the Iris Level Control (12).

14. Scene File Selection Switch (SCENE 1/2/3/4)

This switch is used to select the most suitable camera preset conditions, depending on scene conditions, to obtain the best picture.

Refer to the Operating Instructions of the WV-E550 for details.

SCENE 4 has a condition memorized to the Scene File USER of Camera.

15. Total Pedestal Level Control (T. PED)

This control can adjust the pedestal level of the video signal (luminance) for matching the black levels between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note: As this control employs Digital Processing, this level may be changed in the step.

16. Lens Focus Far/ Near Selection Switch (FOCUS FAR / NEAR)

This is used to adjust the lens focus.

17. Lens Zoom Tele / Wide Selection Switch (ZOOM TELE / WIDE)

This is used to adjust the lens zoom.

As for the lens information, refer to the qualified service personnel or system installers.

Note: The above switches (16) (17) can work to the specified lens only.

18. Pan / Tilt Unit Control Switch (PAN RIGHT / LEFT, TILT UP / DOWN)

This is used to control the specified Pan/Tilt Unit (contact closure type) via the receiver connected with the WV-E550.

19. 12V DC Input Terminals (DC 12V IN)

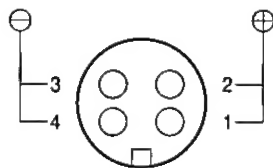
12V DC power is supplied via these terminals.

Be sure to use the Lug Terminals (provided) for this connection.

Caution: Do not use these terminals and 12V DC Input Connector (19) simultaneously.

20. 12V DC Input Connector (DC 12V IN)

12V DC is supplied through this 4-pin connector. For this connection, refer to the qualified service personnel or system installers.



(Front View)

Caution: Do not use this connector and 12V DC Input Terminal (19) simultaneously.

21. Gen-lock Input Connector (G/L IN)

This connector accepts the black burst signal or video signal for gen-lock.

22. Monitor Video Output Connector (MONITOR VIDEO OUT)

This connector supplies the video signal, which is adjusted by the Cable Compensation Control (8), to the video input connector of the monitor.

23. Camera Control Signal Input/ Output Connector (CAMERA CONTROL IN/OUT)

This connector accepts/ supplies the Camera, Pan-tilt and Lens Control signals. Connect the coaxial cable with 20-pin connector (provided) between this connector and the Remote Connector of the camera.

24. Camera Video Input Connector (CAMERA VIDEO IN)

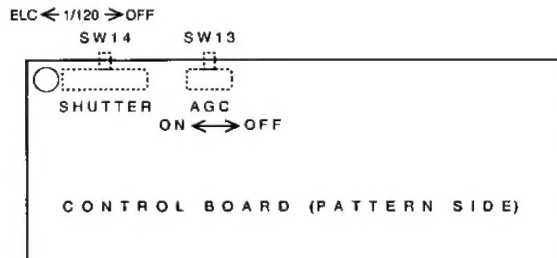
This connector accepts the video signal via the coaxial cable from camera. This video signal which has been adjusted by the Cable Compensation Control (8) is supplied to the Video Input Connector of the monitor via the Monitor Video Output Connector (22).

25. Gen-lock Signal Output Connector (G/L OUT)

Connect the coaxial cable between the Gen-lock Input Connector (G/L IN VBS/HD) of the camera and this unit.

Inside Switch Information

The Switch 13 (SW 13) and 14 (SW 14) are located on the Control Board as shown below.



SW 14: Electronic Shutter Speed Selection Switch (SHUTTER ELC/1/100/OFF)

ELC : This position makes the electronic control for the luminance with the shutter.

1/100 : The shutter speed will be set to 1/100.

OFF : Set this switch to this position when recording normally with standard shutter speeds.
This switch is preset to the OFF position at the factory.

SW 13 : AGC On/Off Switch (AGC)

This switch is used to adjust the gain signal of the camera automatically.

When setting this switch to the ON position, the High Gain Selection Switch (3) can not work.

This switch is preset to the OFF position at the factory.

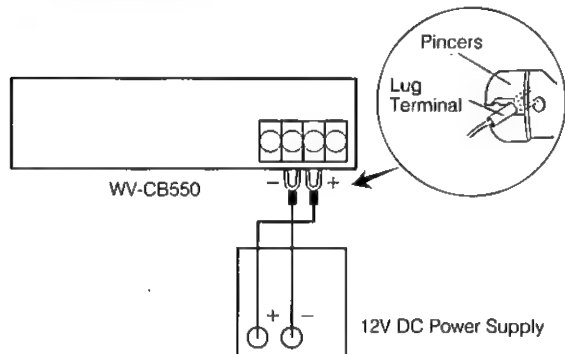
CONNECTIONS

Precautions :

1. The following connections should be made by the qualified service personnel or system installers.
2. When connecting this unit with the camera, the pre-set condition of the camera will be changed as ;
DTL Level: HIGH Level (Fixed)
Shutter Speed: OFF (Fixed, Selectable 1/100 or ELC by the Internal Switch)
Scene File 4: User A or User B (Only WV-E550)

Connection of the 12V DC Input Terminal (19)

The Lug Terminals (provided) should be required for this connection as shown below.

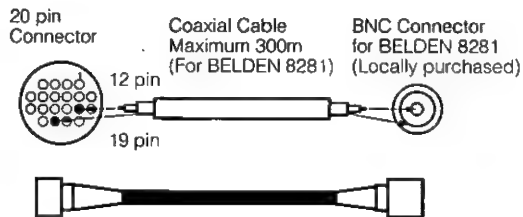


Note : Be sure to connect the cables to the correct polarity.

Caution : Do not use the 12V DC Input Terminal and the 12V DC Input Connector simultaneously.

Connection of Camera Control Signal Input/ Output Connector (23)

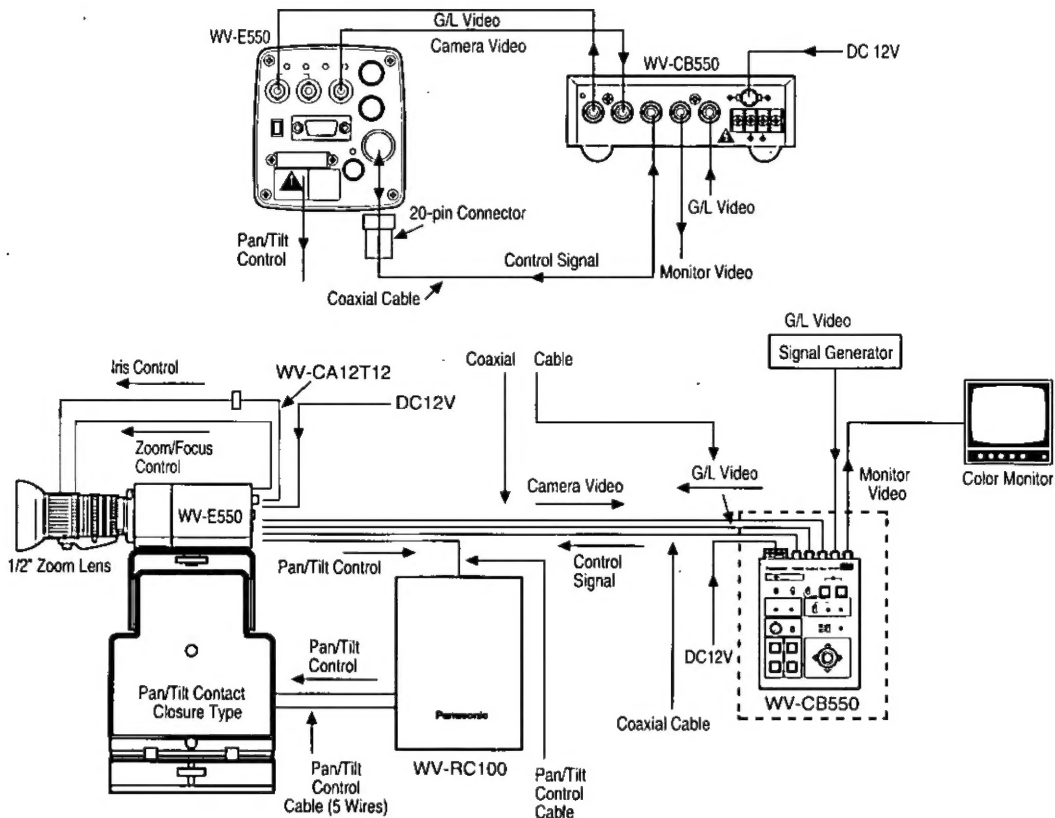
The 20-pin Connector (provided), Coaxial Cable (BELDEN 8281 or equivalent, locally purchased) and BNC Connector (For BELDEN 8281, locally purchased) should be required for this connection as shown below.



SYSTEM CONNECTION

Precaution : Keep the Power off during the connection.

1. Connect the coaxial cable (BELDEN 8281, or equivalent Extension length is max. 300 m) between the Camera Video Input Connector (24) of this unit and the Video Output Connector of the camera.
2. Connect the coaxial cable (BELDEN 8281, or equivalent Extension length is max. 300 m) between the Camera Gen-lock Output Connector (25) of this unit and the Gen-lock Input Connector of the camera.
3. Connect the coaxial cable (BELDEN 8281, or equivalent Extension length is max. 300 m) with the 20-pin connector(provided) between the Camera Control Input/Output Connector (23) of this unit and the Remote Connector of the camera.
4. Connect the coaxial cable between the Monitor Video Output Connector (22) of this unit and the video input connector of the monitor.
5. Connect the coaxial cable for gen-lock signal between the black burst output on the production system and the Gen-lock Input Connector (21) of this unit.



SPECIFICATIONS

Power Source :	12V DC
Input / Output Connector	
Camera Video Input :	Composite Video 1 Vp-p, 75 ohms x 1, BNC Connector
G/L Video Input :	Composite Video 1 Vp-p or Black Burst Video 75 ohms x 1 (BNC Connector)
Monitor Video Output Composite Video :	1 Vp-p, 75 ohms x 1, BNC Connector
G/L Video Output :	75 ohms x 1 (BNC Connector)
Control Signal Input/Output :	75 ohms x 1 (BNC Connector)
Switches	
Mode Select :	BAR / CAM
Gain Select :	LOW / MID / HIGH White Balance Select ATW / A / B
AWC Start :	AWC
ABC Start :	ABC
Scene File Select :	Scene 1/2/3/4
Lens Iris Select :	Iris AUTO / MANU
G/L SC Phase Coarse :	0° / 90° / 180° / 270°
Lens Zoom Control :	TELE
Lens Zoom Control :	WIDE
Lens Focus Control :	FAR
Lens Focus Control :	NEAR
Pan / Tilt Control (Contact Closure Type) :	Up/Down, Right/Left

Controls Volume

Total Pedestal :	T. PED
Lens Iris Level :	IRIS LEVEL
G/L Horizontal Phase :	H PHASE
G/L SC Phase Fine :	SC PHASE FINE
Cable Compensation for Y Signal :	CABLE COMP. Y
Cable Compensation for C Signal :	CABLE COMP. C

Maximum Cable Length :	300 m between Camera and WV-CB550 (Coaxial Cable BELDEN 8281 type or equivalent)
Power consumption :	1.8W
Ambient Operating Temperature :	14°F - 113°F (-10° C - +50°C)
Dimensions :	5-1/2" (W) x 3-1/8" (H) x 7-13/16" (D)
Dimensions :	[140 (W) x 79 (H) x 198 (D) mm]
Weight :	2.2 lbs. (1.0 kg)

Weight and dimensions shown above are approximate.
Specifications are subject to change without notice.

ACCESSORIES

20-pin Connector	1 pc.
Lug Terminal	2 pcs.

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